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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,711	05/10/2006	Tomoyuki Yokokawa	050212-0708	3368
20277 7590 05/16/2007 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER DOAN, JENNIFER	
			ART UNIT 2874	PAPER NUMBER
			MAIL DATE 05/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/578,711

Applicant(s)

YOKOKAWA ET AL.

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 24-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 24, and 25 is/are rejected.
- 7) ☒ Claim(s) 26-33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08).  
Paper No(s)/Mail Date 051006 & 020907.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The prior art documents submitted by applicant in the Information Disclosure Statements filed on 05/10/06 and 02/09/07, have all been considered and made of record (note the attached copy of form PTO-1449).

### ***Drawings***

3. The drawings, filed on 05/10/06, are accepted.

### ***Specification***

4. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-5, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daneshvar et al. (U.S. 6,185,351).

With respect to claim 1, Daneshvar et al. (figure 1) disclose an optical cable comprising a tension member (12); a tube (24) comprised of one of plastic and metal, stranded together around said tension member (12), and containing one or more coated optical fibers (22) inside (column 5, lines 45-46); and an outer sheath (28) covering an outer periphery of said tube.

Daneshvar et al. do not explicitly disclose a ratio of  $A/B$  is 6.3 or more but 7.0 or less, where said each coated optical fiber has a mode field diameter  $A$  of  $8.6 \pm 0.4$   $\mu\text{m}$  at a wavelength of 1.31  $\mu\text{m}$ , and a fiber cutoff wavelength of said each coated optical fiber is  $B$   $\mu\text{m}$ .

However, the ratio of  $A/B$  is 6.3 or more but 7.0 or less is considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at

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the time the invention was made to modify the optical fiber of Daneshvar's device to have the ratio of A/B within the range as claimed for the purpose of obtaining higher efficiency of optical signal transmission, and it also has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the ranges claimed. *In re Aller*, 105 USPQ 233 (see MPEP § 2144.05).

With respect to claim 2, Daneshvar et al. substantially disclose all the limitations of claimed invention except a bending loss of said each coated optical fiber in the diameter of 20 mm at a wavelength of 1.55 gm is 3 dB/m or less.

However, the bending loss of said each coated optical fiber in the diameter of 20 mm at a wavelength of 1.55 gm being 3 dB/m or less are considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the optical fiber of Daneshvar's device with the bending loss value as claimed for the purpose of obtaining higher efficiency of optical signal transmission, and it also has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the value claimed. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (see MPEP § 2144.05).

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With respect to claims 3 and 4, Daneshvar et al. substantially disclose all the limitations of claimed invention except an extra length ratio of said each coated optical fiber to said tube is more than 0 % but 0.10 % or less and is -0.03 % or more but less than 0 %.

However, the extra length ratio of said each coated optical fiber to said tube being more than 0 % but 0.10 % or less and -0.03 % or more but less than 0 % are considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the optical fiber of Daneshvar's device to have the extra length ratio within the ranges as claimed for the purpose of obtaining higher efficiency of optical signal transmission, and it also has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the ranges claimed. *In re Aller*, 105 USPQ 233 (see MPEP § 2144.05).

With respect to claim 5, Daneshvar et al. substantially disclose all the limitations of claimed invention except an occupied factor of said coated optical fibers within said tube is 20 % or more but 75 % or less.

However, the occupied factor of said coated optical fibers within said tube being 20 % or more but 75 % or less is considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the optical fiber of Daneshvar's device to have the occupied factor within the

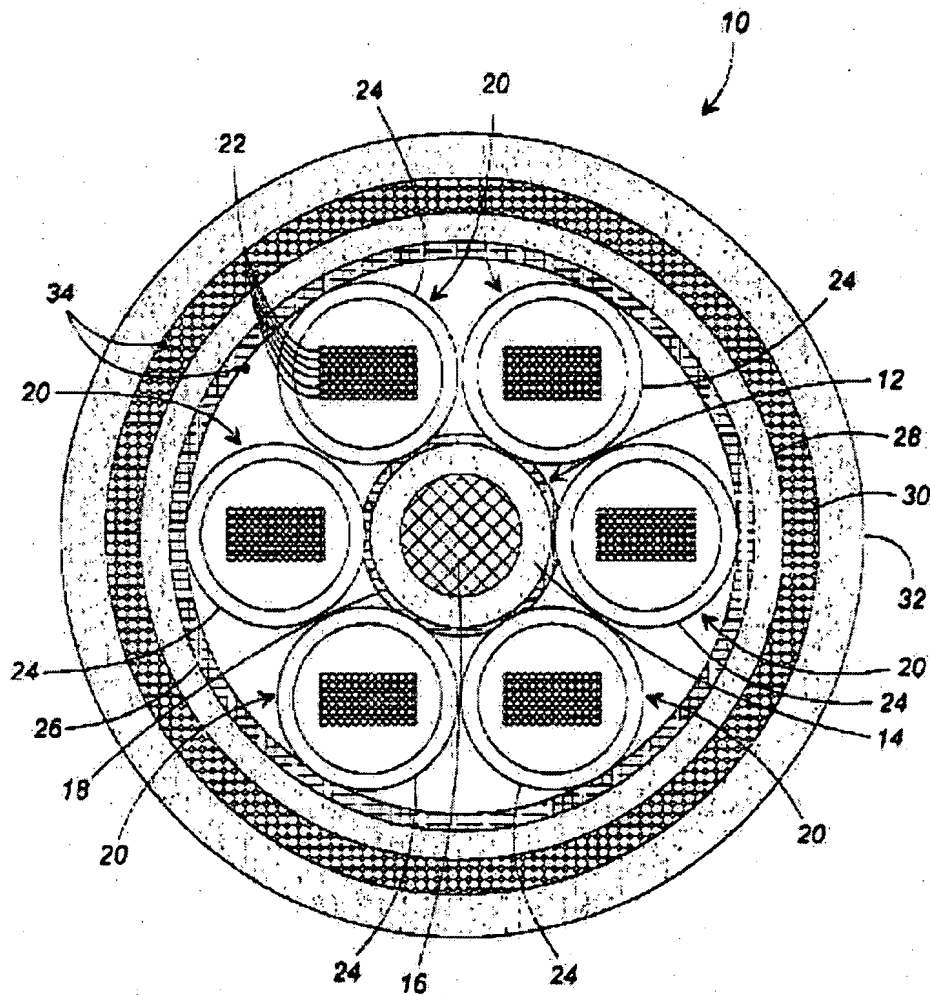
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ranges as claimed for the purpose of obtaining higher efficiency of optical signal transmission, and it also has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the ranges claimed. *In re Aller*, 105 USPQ 233 (see MPEP § 2144.05).

With respect to claim 24, Daneshvar et al. (figure 2) disclose an optical transmission system comprising an optical cable for an optical transmission line for transmitting optical signals (see figure 2).

With respect to claim 25, Daneshvar et al. substantially disclose all the limitations of claimed invention except for a force-feeding rate of 20 m/min or more.

However, the force-feeding rate of 20 m/min or more is considered to be obvious. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the optical fiber of Daneshvar's device with the force-feeding rate value as claimed for the purpose of obtaining higher efficiency of optical signal transmission, and it also has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the value claimed. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (see MPEP § 2144.05).



**FIG. 1**



***Allowable Subject Matter***

8. Claims 26-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to disclose or reasonably suggest the optical cable, wherein each of said coated optical fibers comprises a core region made of pure silica glass, and a cladding region made of F-doped silica glass as recited in claim 26.

Claims 27-33 depend from claim 26.

***Conclusion***

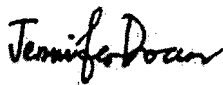
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm, second Friday off.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JD

May 13, 2007

  
JENNIFER DOAN  
PRIMARY EXAMINER